SYSTEM AND ELEMENTS FOR MANAGING THERAPEUTIC GAS ADMINISTRATION TO A SPONTANEOUSLY BREATHING, NON-VENTILATED PATIENT

ABSTRACT

A system controls and manages administration of a therapeutic gas, such as NO, O_2, or the like, to a spontaneously breathing, non-ventilated patient such that concentrated NO is as low as reasonably possible while delivering the desired amount of NO to the distal portions of the lungs. The system includes an entrainment cell that provides remote, turbulent mixing with low temporal latency and can be used with a nasal cannula or a mask. The entrainment cell uses room air to dilute the therapeutic gas; however, supplementary gases can also be used. A baffle can be included to promote mixing and a flow sensor can also be used if desired. Multiple ports can be included in the entrainment cell. An equalizing valve is also disclosed.